

[0014] In certain embodiments, a video reel display and the video display device are configured to cooperate in displaying three-dimensional visual output that has an actual three-dimensional depth along the common line of sight. In certain embodiments, the one or more reels or the reel display comprises a multilayer display. In some cases, the video display device comprises a non-transparent liquid crystal display. Another feature that may be included in apparatus is a touch screen proximately located along the common line of sight and positioned to allow a player to select game options by touching regions on the video display device along the common line of sight.

[0015] In various embodiments, the mechanism for moving includes a motor drive for moving the video display device into and out of the common line of sight. In addition or alternatively, the mechanism for moving includes a motor drive for moving the reels or reel display into and out of the common line of sight.

[0016] Certain aspects of the invention pertain to systems having one or more gaming machines as described above incorporated on a network.

[0017] Another aspect of the invention pertains to methods of presenting a game on a gaming machine. Such methods may be characterized by the following operations: (a) determining that an aspect of a game is to be displayed on either (i) one or more reels or a reel display mounted to or within a cabinet of gaming machine or (ii) a video display device positioned in front of and along a common line of sight with respect to the reels or reel display; (b) moving at least one of the video display device and the reels or reel display into and out of position along the common line of sight depending upon which one is to be determined to display the aspect of the game; and (c) executing instructions that permit game play on the gaming machine. In certain embodiments, the gaming machine employed in such methods contains one or more of the features described above. For example, the gaming machine may include game presentation logic and a processor to present video information on the video display device pertinent to said game play on the gaming machine. In addition, the gaming machine may include a mechanism for moving at least one of the video display device and the reels or reel display into and out of position along the common line of sight.

[0018] In certain embodiments, determining that an aspect of a game is to be displayed involves determining which of two different types of game is to be displayed. Based on this, the gaming machine determines whether to move (i) the at least one video display device or (ii) the reels or reel display. For example, the reels or reel display may be moved into position along the common line of sight when a slot game type is selected.

[0019] These and other features and advantages of the invention will be described in more detail below with reference to associated drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1A is a perspective view of a gaming machine in accordance with one embodiment of the present invention.

[0021] FIG. 1B shows a display device arrangement suitable for use with a gaming machine in accordance with another embodiment of the present invention.

[0022] FIG. 1C is an exploded perspective view of a display device arrangement in accordance with another embodiment of the present invention.

[0023] FIGS. 2A and 2B illustrates one game example where curved display device outputs a video reel image in accordance with a specific embodiment of the present invention.

[0024] FIG. 3 shows exemplary video output that may be shown on the display system of FIG. 1C during performance of a slots routine using reels display on the curved display device in accordance with another specific embodiment of the present invention.

[0025] FIG. 4 shows exemplary video output shown on the display system of FIG. 1C when the light valve has been activated to obscure the images on rear display device.

[0026] FIGS. 5A-5D show exemplary video data output on the display devices and gaming machine of FIG. 1A.

[0027] FIG. 6A is a perspective view of a gaming machine in accordance with one embodiment of the present invention.

[0028] FIG. 6B shows a display device arrangement in accordance with another embodiment of the present invention.

[0029] FIG. 7 illustrates a control configuration for use in a gaming machine in accordance with another specific embodiment of the present invention.

[0030] FIG. 8 is flowchart or software routine of a display routine that may be executed by a gaming machine controller in accordance with a specific embodiment of the present invention.

[0031] FIGS. 9A-9F depict examples of embodiments in which one or both of a video display screen and a reel type display are moved into and out of a viewing position. In these embodiments, the entire presentation device is moved into or out of viewing position depending on the circumstances.

DETAILED DESCRIPTION

[0032] The present invention will now be described in detail with reference to a few preferred embodiments thereof as illustrated in the accompanying drawings. In the following description, numerous specific details are set forth in order to provide a thorough understanding of the present invention. It will be apparent, however, to one skilled in the art, that the present invention may be practiced without some or all of these specific details. In other instances, well known process steps and/or structures have not been described in detail in order to not unnecessarily obscure the present invention.

[0033] The present invention includes a gaming machine with multiple display devices arranged in a common line of sight relative to a person near the gaming machine. Multiple display devices disposed along a common line of sight are also referred to herein as 'layered' displays. One or more of the layered display devices proximate to the person are completely or partially transparent or translucent so as to permit view of the distal display devices.

[0034] The distal display may include a curved display device, such as a curved OLED or a projection system that casts an image onto a curved surface. These curved display devices are suitable for mimicking a conventional mechanical reel game, but allow the digital and external control of reel games on the curved digital display. Glass LCDs may be curved and are also suitable for use.

[0035] This multi-layer display device arrangement improves visual output for a gaming machine. As will be described below, display device arrangements described herein permit better graphics for a game played on a gaming machine, more games to be played on a single gaming machine, and/or dynamic reconfiguration of a gaming